

Contents

Marine Geology Volume 115, 1993

Editorial

A farewell editorial

Dean A. McManus

1

Letter Section

Relics of evaporated sea water in deep basins of the Eastern Mediterranean

A. Vengosh and A. Starinsky

15

Geophysical studies over a segment of the Carlsberg Ridge, Indian Ocean

M.V. Ramana, T. Ramprasad, K.A. Kamesh Raju and M. Desa

21

Research Papers

Holocene growth history of a reef complex on a cool-water carbonate margin: Easter Group of the Houtman Abrolhos, Eastern Indian Ocean

L.B. Collins, Z.R. Zhu, K.-H. Wyrwoll, B.G. Hatcher, P.E. Playford, A. Eisenhauer, J.H. Chen, G.J. Wasserburg and G. Bonani

29

Hydrothermal polygorskite and ferromanganese mineralization at a central California margin fracture zone

A.E. Gibbs, J.R. Hein, S.D. Lewis and D.S. McCulloch

47

Stabilization of 10Å-manganates by interlayer cations and hydrothermal treatment: Implications for the mineralogy of marine manganese concretions

T.A. Mellin and G. Lei

67

Mineralogy and geochemistry of the clay fraction of sediments from the Namibian continental margin and the adjacent hinterland

J.M. Bremner and J.P. Willis

85

Origin of the Plio-Pleistocene Vrica laminites: Organic geochemical evidence

P.A. Meyers

117

Seismic stratigraphy of the fault-controlled submarine canyon/valley system on the shelf and upper slope of Anamur Bay, Northeastern Mediterranean Sea

V. Ediger, M. Okyar and M. Ergin

129

Depth of activation of sediment by plunging breakers on a steep sand beach

N.L. Jackson and K.F. Nordstrom

143

Short Note

Influence of Francis Parker Shepard on marine geology

K.O. Emery, R.S. Dietz and G.G. Kuhn

153

Book Reviews

Quaternary Coasts of the United States: Marine and Lacustrine Systems, by C.H. Fletcher and J.F. Wehmiller (Editors)

—J. Ehlers

157

Sea Levels, Land Levels, and Tide Gauges, by K.O. Emery and David G. Aubrey—L. Jansa

158

Upwelling Systems: Evolution Since the Early Miocene, by C.P. Summerhayes, W.L. Prell and K.C. Emeis (Editors)

—B.M. Funnel

161

Announcement

163

Guide for Authors

Letter Section

Detailed survey of the ocean bottom structure in the Central Indian Ocean Intense Deformation Zone: Tectonic implications

O.V. Levchenko, Y.D. Evsjukov, C. Subrahmanyam, G.S. Mital and R.K. Drolia

165

Research Papers

Miocene to Quaternary paleoenvironments and uplift history on the mid Norwegian shelf

D.A.R. Poole and T.O. Vorren

173

Dynamics of large and small scale bedforms on a macrotidal shoreface under shoaling and breaking waves

P.D. Osborne and C.E. Vincent

207

Water table outcropping on macro-tidal beaches: A simulation model I. Turner	227
Longshore bar and trough systems in a microtidal, storm-wave dominated coast: The Ebro Delta (Northwestern Mediterranean) J. Guillén and A. Palanques	239
Long-term shoreline changes and the concentration of heavy minerals in beach sands of the Nile Delta, Egypt O.E. Frihy and P.D. Komar	253
Saltation on gravel beaches, Tierra del Fuego, Argentina F.I. Isla and G.G. Bujalesky	263
VIMS Sea Carousel: A field instrument for studying sediment transport J.P.-Y. Maa, L.D. Wright, C.-H. Lee and T.W. Shannon	271
Calcareous nannofossil biostratigraphic dating of a ferromanganese crust from Schumann Seamount J.P. Cowen, E.H. DeCarlo and D.L. McGee	289
Ash layers and pumice in the central Indian Basin: Relationship to the formation of manganese nodules A. Martín-Barajas and E. Lallier-Verges	307

